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1   . LISTING OF THE CLAIMS

2   What is claimed is:

3   1. (Currently amended) An extensible-markup-language Path Language (XPath) evaluating

4   method comprising evaluating the XPath relevant to an extensible-markup-language (XML)

5   document by use of a computer, said step of evaluating being carried out individually concerning

6   inputted XML events, while subjecting the XML document to streaming processing, the step of

7   evaluating XPath comprising:

8   a first step of serially inputting XML event strings constituting an XML document to be

9   processed;

10   a second step of serially evaluating the XPath respectively relevant to the inputted XML

11   events while subjecting the XML document to streaming processing and retaining information

12   concerning a result of partial evaluation of the XPath in given storing means when the XPath is

13   partially established with respect to a given XML event;

14   a third step of repeating the partial evaluation of the XPath along with the input of the

15   XML event strings while considering the result of the partial evaluation retained in the storing

16   means and evaluating that the XPath is established with respect to the XML document when the

17   last part of the XPath is established; and

18   judging establishment of the entire XPath while accumulating results of said partial

19   evaluation enabling evaluation of the XPath by use of said streaming processing,

20   _____ wherein the second step includes the steps of:

21   _____ generating an automaton for expressing the XPath to be evaluated; and

22   _____ evaluating the XPath partially by allowing transition of a state of the automaton based on

23   inputted respective XML events and retaining a result of the partial evaluation as the state of the

24   automaton:

25   _____ wherein the second step includes the steps of:

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1   generating a first stack which expresses the XPath to be evaluated with a string of stack

2   elements; and

3   generating a second stack for analyzing a nested structure of the XML document to be

4   processed based on respective inputted XML events and then evaluating the XPath partially by

5   comparing the first stack with the second stack; and

6   wherein the second step includes the steps of:

7   serially constructing a document tree indicating a document structure of the XML

8   document to be processed based on input of respective XML events; and

9   evaluating the XPath along with construction of the document tree by use of the

10   document tree including a part which has been constructed.

11   2. - 4. (Canceled)

12   5. (Currently amended) An XPath evaluating apparatus comprising:

13   an evaluation executing unit being embodied in a program storage device readable by

14   machine, tangibly embodying a program of instructions, and employed for inputting XML event

15   strings constituting an XML document and serially evaluating the XPath with respect to each of

16   XML events while subjecting the XML document to streaming processing, said serially

17   evaluating being carried out individually concerning inputted XML events, while subjecting the

18   XML document to streaming processing, and while retaining information concerning a result of

19   partial evaluation of the XPath when the XPath is partially established with respect to a given

20   XML event, and evaluating that the XPath is established with respect to the XML document

21   when the last step of the XPath is established;

22   an XML event transferring unit being embodied in a program storage device readable by

23   machine, tangibly embodying a program of instructions, and employed for inputting the XML

24   event strings constituting the XML document to be processed and serially transferring the XML

25   event strings to the evaluation executing unit; and

26   a judging unit judging establishment of the entire XPath while accumulating results of

27   said partial evaluation enabling evaluation of the XPath by use of said streaming processing;

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1   an automaton generating unit being embodied in a program storage device readable by

2 machine, tangibly embodying a program of instructions, and employed for generating an

3 automaton which expresses the XPath to be evaluated, wherein the evaluation executing unit

4 performs partial evaluation of the XPath by allowing a state of the automaton generated by the

5 automaton generating unit to perform transition based on the XML events transferred from the

6 XML event transferring unit, and retains a result of the partial evaluation as the state of the

7 automaton;

8   a stack generating unit being embodied in a program storage device readable by machine,

9 tangibly embodying a program of instructions, and employed for generating a first stack which

10 expresses the XPath to be evaluated with a string of stack elements,

11   wherein the evaluation executing unit performs partial evaluation of the XPath by

12 generating a second stack for analyzing a nested structure of the XML document subject to

13 processing based on the XML events transferred from the XML event transferring unit and then

14 comparing the first stack generated by the stack generating unit with the second stack.

15   6. - 13. (Canceled)

16   14. (Previously presented) A program embodied in a program storage device readable by

17 machine, tangibly embodying a program of instructions, and employed for controlling a computer

18 to evaluate the XPath with respect to an XML document, the program causing the computer to

19 execute the procedures for carrying out the steps of claim 1.

20   15. (Previously presented) An article of manufacture comprising a program storage device

21 readable by machine, tangibly embodying a program of instructions for causing evaluation of

22 the XPath relevant to an extensible-markup-language (XML) document, the program of

23 instructions in said article of manufacture for causing a computer to effect the steps of claim 1.

24   16. (Original) A program storage device readable by machine, tangibly embodying a program of

25 instructions executable by the machine to perform method steps for evaluating the XPath relevant

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1   to an extensible-markup-language (XML) document, said method steps comprising the steps of

2   claim 1.

3   17. (Original) A computer-readable recording medium comprising the program according to

4   claim 14.

5   18. (Previously presented) A computer program product comprising a program storage device

6   readable by machine, tangibly embodying a program of instructions for causing XPath

7   evaluation, the program of instructions in said computer program product for causing a

8   computer to effect the Xpath evaluating apparatus of claim 5.

9   19. - 20. (Canceled)

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